

Amendments to the Claims:

The following claims will replace all prior versions of the claims in this application (in the unlikely event that no claims follow herein, the previously pending claims will remain):

1-23. (Cancelled).

24. (Currently amended) A particulate composition of matter ~~for use~~ useful as a vehicle for introducing biocide into a liquid-based medium comprising a liquid dispersible mass of porous inorganic carrier particles having a pore size range including the range from about 20 to about 50 Angstroms and a pore area of at least 25 m²/g in said pore size range from about 20 to about 50 Angstroms and which is at least one of amorphous silicas, amorphous aluminas, ~~pseudboehmites~~ pseudoboehmites, Y-zeolites, dealuminated Y-zeolites or mixtures of two or more thereof and biocide releasably adsorbed within the pore system thereof whereby upon dispersion of the mass into the liquid-based medium biocide may be released into the liquid-based medium and said particles having a retention factor R, determined from the equation $R = A/P$, where A represents the percentage active ingredient by weight remaining in the pore system after contacting a sample consisting of a homogenised mixture of 0.75 g biocide and 2.25 g of carrier particles with 1000 ml of water for 90 minutes and P represents the potency as defined by the Minimum Inhibition Concentration in mg of active ingredient per liter of the biocide determined with respect to the reference microorganism *Aureobasidium pullulans*, of at least 0.6.

25. (Previously presented) A composition as claimed in claim 24 in which the retention factor is at least 0.8.

26. (Currently amended) A ~~particulate composition~~ in which the particles carry at least 30% by weight of biocide solution ~~of matter for use as a vehicle for introducing biocide into a liquid-based medium comprising porous inorganic carrier particles which is at least one of amorphous silicas, amorphous aluminas, pseudboehmites, Y-zeolites, dealuminated Y-zeolites or mixtures of two or more thereof having biocide adsorbed within the pore system~~

thereof and having a retention factor R, determined from the equation $R = A/P$, where A represents the percentage active ingredient by weight remaining in the pore system after contacting a sample consisting of a homogenised mixture of 0.75 g biocide and 2.25 g of carrier particles with 1000 ml of water for 90 minutes and P represents the potency as defined by the Minimum Inhibition Concentration in mg of active ingredient per liter of the biocide determined with respect to the reference microorganism *Aureobasidium pullulans*, of at least 0.6.

27. (Previously presented) A composition as claimed in claim 24 in which the particles have an activated micropore system.

28. (Cancelled).

29. (Currently amended) ~~A composition as claimed in claim 24~~ A particulate composition of matter comprising a liquid dispersible mass of porous inorganic carrier particles which is at least one of amorphous silicas, amorphous aluminas, pseudoboehmites, Y-zeolites, dealuminated Y-zeolites or mixtures of two or more thereof and biocide releasably adsorbed within the pore system thereof, said particles in which the particles have having a retention factor R, determined from the equation $R = A/P$, where A represents the percentage active ingredient by weight remaining in the pore system after contacting a sample consisting of a homogenised mixture of 0.75 g biocide and 2.25 g of carrier particles with 1000 ml of water for 90 minutes and P represents the potency as defined by the Minimum Inhibition Concentration in mg of active ingredient per liter of the biocide determined with respect to the reference microorganism *Aureobasidium pullulans*, of at least 0.6, and a BET surface area of at least 200 m²/g, wherein the biocide is at least one of 2-methyl-4-isothiazolone, 2-ethyl-4-isothiazolin-3-one, 2-propyl-4-isothiazolin-3-one, 2-butyl-4-isothiazolin-3-one, 2-amyl-4-isothiazolin-3-one, 5-chloro-2-methyl-4-isothiazolin-3-one, 5-bromo-2-methyl-4-isothiazolin-3-one, 5-iodo-2-methyl-4-isothiazolin-3-one, 5-chloro-2-butyl-4-isothiazolin-3-one, 5-bromo-2-ethyl-4-isothiazolin-3-one, 5-iodo-2-amyl-4-isothiazolin-3-one, 1,2-benzisothiazolin-3-one, 2-n-octyl-4-isothiazolin-3-one, or 4,5-dichloro-2-n-octyl-4-isothiazolin-3-one.

30. (Currently amended) A composition as claimed in claim 24 29 in which the particles have a BET surface area of at least 300 m²/g.

31. (Previously presented) A composition as claimed in claim 24 in which the particles have a biocide adsorption capacity of at least 10% by weight.

32. (Previously amended) A composition as claimed in claim 24 in which the inorganic carrier particles are amorphous silicas, with, optionally, Y-zeolites, dealuminated Y-zeolites or mixtures of two or more of these.

33. (Previously presented) A liquid-based medium incorporating the particulate composition as claimed in claim 24, said liquid medium comprising a surface coating composition, a surface cleaning composition, a sealant composition, a tiling composition, a grouting composition or a drilling mud.

34. (Previously presented) A composition as claimed in claim 26 in which the inorganic carrier particles are amorphous silicas, with, optionally, Y-zeolites, dealuminated Y-zeolites or mixtures of two or more of these.

35. (Previously presented) A liquid-based medium incorporating the particulate composition as claimed in claim 26, said liquid medium comprising a surface coating composition, a surface cleaning composition, a sealant composition, a tiling composition, a grouting composition and a drilling mud.

36. (Previously presented) A surface coating formulation as claimed in claim 34 in the form of a water-based or organic solvent-based paint.

37. (Withdrawn) A surface cleaning formulation incorporating the particulate composition as claimed in claim 24.

38. (Withdrawn) A sealant formulation incorporating the particulate composition as claimed in claim 24.

39. (Withdrawn) A tiling, grouting or cement-based formulation incorporating the particulate composition as claimed in claim 24.

40. (Withdrawn) A mud drilling formulation incorporating the particulate composition as claimed in claim 24.

41. (Currently amended) A method of biocidally protecting a formulation comprising one or more components and a biocide, said method comprising dispersing into the formulation a particulate composition comprising porous inorganic carrier particles having a pore size range including the range from about 20 to about 50 Angstroms and a pore area of at least 25 m²/g in said pore size range from about 20 to about 50 Angstroms and which is at least one of amorphous silicas, amorphous aluminas, ~~pseudboehmites~~ pseudoboehmites, Y-zeolites, dealuminated Y-zeolites or mixtures of two or more thereof and having a retention factor R, determined from the equation $R = A/P$, where A represents the percentage active ingredient by weight remaining in the pore system after contacting a sample consisting of a homogenised mixture of 0.75 g biocide and 2.25 g of carrier particles with 1000 ml of water for 90 minutes and P represents the potency as defined by the Minimum Inhibition Concentration in mg of active ingredient per liter of the biocide determined with respect to the reference microorganism *Aureobasidium pullulans*, of at least 0.6, whereby said biocide is adsorbed within the pore system thereof.

42. (Previously presented) A method as claimed in claim 41 in which the biocide is an isothiazolone.

43. (Previously presented) A method as claimed in claim 41 in which the particles used are effective to reduce degradation of the biocide to such an extent that at least 60% of the biocide is detectable when the biocide-containing particles are subjected to UV exposure

using a 500 W high pressure mercury/tungsten lamp operating at a temperature of 50°C and a relative humidity of 50% and/or thermal ageing for at least 40 days in an incubator at 60°C.

44. (Previously presented) A method as claimed in claim 41 in which the particles used are effective to reduce degradation of the biocide to such an extent that at least 80% of the biocide is detectable when the biocide-containing particles are subjected to UV exposure using a 500 W high pressure mercury/tungsten lamp operating at a temperature of 50°C and a relative humidity of 50% and/or thermal ageing for at least 40 days in an incubator at 60°C.

45. (Currently amended) A method as claimed in claim 42 in which the biocide comprises 2-n-octyl-4-isothiazolin-3-one ~~43 in which the particles used are effective to reduce degradation of the biocide to such an extent that at least 60% of the biocide is detectable when the biocide-containing particles are subjected to UV exposure using a 500 W high pressure mercury/tungsten lamp operating at a temperature of 50°C and a relative humidity of 50% and/or thermal ageing for at least 40 days in an incubator at 60°C.~~

46. (Currently amended) A method as claimed in claim in which the biocide comprises 2-methyl-4-isothiazolin-3-one and 5-chloro-2-methyl-4-isothiazolin-3-one ~~43 in which the particles used are effective to reduce degradation of the biocide to such an extent that at least 80% of the biocide is detectable when the biocide-containing particles are subjected to UV exposure using a 500 W high pressure mercury/tungsten lamp operating at a temperature of 50°C and a relative humidity of 50% and/or thermal ageing for at least 40 days in an incubator at 60°C.~~

47. (Previously presented) A method as claimed in claim 42, wherein said isothiazolone is at least one of 2-methyl-4-isothiazolone, 2-ethyl-4-isothiazolin-3-one, 2-propyl-4-isothiazolin-3-one, 2-butyl-4-isothiazolin-3-one, 2-amyl-4-isothiazolin-3-one, 5-chloro-2-methyl-4-isothiazolin-3-one, 5-bromo-2-methyl-4-isothiazolin-3-one, 5-iodo-2-methyl-4-isothiazolin-3-one, 5-chloro-2-butyl-4-isothiazolin-3-one, 5-bromo-2-ethyl-4-isothiazolin-3-one, 5-iodo-2-amyl-4-isothiazolin-3-one, 1,2-benzisothiazolin-3-one, 2-n-octyl-4-isothiazolin-3-one, or 4,5-dichloro-2-n-octyl-4-isothiazolin-3-one.

48. (Currently amended) ~~A composition as claimed in claim 24 in which the inorganic carrier particles are~~ A particulate composition of matter comprising a liquid dispersible mass of porous inorganic carrier particles which are Y-zeolites with, optionally, amorphous silicas, dealuminated Y-zeolites, or mixtures of two or more of these and biocide releasably adsorbed within the pore system thereof, said particles having a retention factor R, determined from the equation $R = A/P$, where A represents the percentage active ingredient by weight remaining in the pore system after contacting a sample consisting of a homogenised mixture of 0.75 g biocide and 2.25 g of carrier particles with 1000 ml of water for 90 minutes and P represents the potency as defined by the Minimum Inhibition Concentration in mg of active ingredient per liter of the biocide determined with respect to the reference microorganism *Aureobasidium pullulans*, of at least 0.6, and a BET surface area of at least 200 m²/g, wherein the biocide is at least one of 2-methyl-4-isothiazolone, 2-ethyl-4-isothiazolin-3-one, 2-propyl-4-isothiazolin-3-one, 2-butyl-4-isothiazolin-3-one, 2-amyl-4-isothiazolin-3-one, 5-chloro-2-methyl-4-isothiazolin-3-one, 5-bromo-2-methyl-4-isothiazolin-3-one, 5-iodo-2-methyl-4-isothiazolin-3-one, 5-chloro-2-butyl-4-isothiazolin-3-one, 5-bromo-2-ethyl-4-isothiazolin-3-one, 5-iodo-2-amyl-4-isothiazolin-3-one, 1,2-benzisothiazolin-3-one, 2-n-octyl-4-isothiazolin-3-one, or 4,5-dichloro-2-n-octyl-4-isothiazolin-3-one.

49. (Currently amended) ~~A composition as claimed in claim 24 in which the inorganic carrier particles are~~ A particulate composition of matter comprising a liquid dispersible mass of porous inorganic carrier particles which are dealuminated Y-zeolites with, optionally, amorphous silicas, Y-zeolites, or mixtures of two or more of these and biocide releasably adsorbed within the pore system thereof, said particles having a retention factor R, determined from the equation $R = A/P$, where A represents the percentage active ingredient by weight remaining in the pore system after contacting a sample consisting of a homogenised mixture of 0.75 g biocide and 2.25 g of carrier particles with 1000 ml of water for 90 minutes and P represents the potency as defined by the Minimum Inhibition Concentration in mg of active ingredient per liter of the biocide determined with respect to the reference microorganism *Aureobasidium pullulans*, of at least 0.6, and a BET surface area of at least 200 m²/g, wherein the biocide is at least one of 2-methyl-4-isothiazolone, 2-ethyl-4-isothiazolin-3-one, 2-propyl-4-isothiazolin-3-one, 2-butyl-4-isothiazolin-3-one, 2-amyl-4-

isothiazolin-3-one, 5-chloro-2-methyl-4-isothiazolin-3-one, 5-bromo-2-methyl-4-isothiazolin-3-one, 5-iodo-2-methyl-4-isothiazolin-3-one, 5-chloro-2-butyl-4-isothiazolin-3-one, 5-bromo-2-ethyl-4-isothiazolin-3-one, 5-iodo-2-amyl-4-isothiazolin-3-one, 1,2-benzisothiazolin-3-one, 2-n-octyl-4-isothiazolin-3-one, or 4,5-dichloro-2-n-octyl-4-isothiazolin-3-one.

50. (Currently amended) A particulate composition of matter ~~for use~~ useful as a vehicle for introducing biocide into a liquid-based medium comprising a liquid- dispersible mass of inorganic carrier particles having a pore size range including the range from about 20 to about 50 Angstroms and a pore area of at least 25 m²/g in said pore size range from about 20 to about 50 Angstroms and comprising amorphous silica particles having an activated micropore system and having biocide adsorbed within the pore system thereof for release of biocide into the liquid medium, said amorphous silica particles having a retention factor R, determined from the equation $R = A/P$, where A represents the percentage active ingredient by weight remaining in the pore system after contacting a sample consisting of a homogenised mixture of 0.75 g biocide and 2.25 g of carrier particles with 1000 ml of water for 90 minutes and P represents the potency as defined by the Minimum Inhibition Concentration in mg of active ingredient per liter of the biocide determined with respect to the reference microorganism *Aureobasidium pullulans*, of at least 0.6.

51. (Currently amended) A composition as claimed in Claim 50 in which the particles have:

a weight mean particle size less than 50 microns[[:]]
~~a pore size range including the range from about 20 to about 50 Angstrom; and~~
~~a pore area of at least 25 m²/g in the pore size range from about 20 to about 50 Angstrom.~~

52. (Currently amended) A particulate composition of matter ~~for use~~ useful as a vehicle for introducing biocide into a liquid-based medium comprising a liquid- dispersible mass of inorganic carrier particles comprising Y zeolite particles having biocide adsorbed within the pore system thereof for release of biocide into the liquid medium, said amorphous Y zeolite particles having a retention factor R, determined from the equation $R = A/P$, where

A represents the percentage active ingredient by weight remaining in the pore system after contacting a sample consisting of a homogenised mixture of 0.75 g biocide and 2.25 g of carrier particles with 1000 ml of water for 90 minutes and P represents the potency as defined by the Minimum Inhibition Concentration in mg of active ingredient per liter of the biocide determined with respect to the reference microorganism *Aureobasidium pullulans*, of at least 0.6, and wherein the biocide is at least one of 2-methyl-4-isothiazolone, 2-ethyl-4-isothiazolin-3-one, 2-propyl-4-isothiazolin-3-one, 2-butyl-4-isothiazolin-3-one, 2-amyl-4-isothiazolin-3-one, 5-chloro-2-methyl-4-isothiazolin-3-one, 5-bromo-2-methyl-4-isothiazolin-3-one, 5-iodo-2-methyl-4-isothiazolin-3-one, 5-chloro-2-butyl-4-isothiazolin-3-one, 5-bromo-2-ethyl-4-isothiazolin-3-one, 5-iodo-2-amyl-4-isothiazolin-3-one, 1,2-benzisothiazolin-3-one, 2-n-octyl-4-isothiazolin-3-one, or 4,5-dichloro-2-n-octyl-4-isothiazolin-3-one.

53. (Previously presented) A composition as claimed in Claim 52 in which the Y zeolite is a dealuminated Y zeolite.

54. (Previously presented) A composition as claimed in Claim 52 in which the Si:Al ratio of the Y zeolite is at least about 5:1.

55. (Previously presented) A composition as claimed in Claim 52 in which the Si:Al ratio of the Y zeolite is in the range from about 5:1 to about 33:1.

56. (New) A particulate composition of matter useful as a vehicle for introducing biocide into a liquid-based medium comprising a liquid-dispersible mass of inorganic carrier particles having a pore size range including the range from about 20 to about 50 Angstroms; and a pore area of at least 25 m²/g in the pore size range from about 20 to about 50 Angstroms and comprising Y zeolite particles having biocide adsorbed within the pore system thereof for release of biocide into the liquid medium, said amorphous Y zeolite particles having a retention factor R, determined from the equation $R = A/P$, where A represents the percentage active ingredient by weight remaining in the pore system after contacting a sample consisting of a homogenised mixture of 0.75 g biocide and 2.25 g of carrier particles with 1000 ml of water for 90 minutes and P represents the potency as defined

by the Minimum Inhibition Concentration in mg of active ingredient per liter of the biocide determined with respect to the reference microorganism *Aureobasidium pullulans*, of at least 0.6.